CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 78-89

NPDES NO. CA0028363

WASTE DISCHARGE REQUIREMENTS FOR:

AMCHEM PRODUCTS, INC.,
FREMONT, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. Amchem Products, Inc., hereinafter called the discharger, submitted a report of waste discharge (NPDES Short Form C) dated March 29, 1978.

2. The discharger's facility is located at 37899 Niles Boulevard, Fremont, immediately adjacent to Alameda Creek, a major groundwater recharge stream. The plant's principal product is agricultural and metal cleaning chemicals, and its principal process is liquid blending. It is basically a compound plant, blending bases produced at other locations. The operations at this plant produce no process wastes except for washwater as noted in finding 3 below; discharge of stormwater runoff, in finding 4; and the possible spill of hazaradous materials, in finding 5.

3. The only liquid process waste produced is from washing equipment when there is a change in product types or washing inside floor areas. To handle these wastes, a pretreatment unit is operated for reduction of heavy metals and suspended solids removal prior to discharge, under permit, to the Union Sanitary District. All sludge is removed to a Class I disposal site.

4. A separate storm sewer drains the transfer-storage, product storage, and miscellaneous areas and discharges an indeterminate quantity of potentially polluted stormwater runoff to Alameda Creek, a water of the United States. Stormwater runoff from this area contains pollutants from the storage, normal handling, and residuals of spills of acids; herbicides containing 2, 4-D, 2,4,5 -T, and 2,4,5 -TP Silvex; metal cleaning liquids containing chrome, nickel and zinc; and other minor amounts of miscellaneous chemicals. Shut-off valves are installed on the storm drain lines from these areas. These valves are maintained in a closed and locked position and opened only after a rain. Such drainage is done only under direct supervision of plant management to ensure that no polluted stormwater is discharged. A log book is maintained to record the date and time when valves are opened for stormwater discharge.

5. Board Cleanup and Abatement Order (CAO) 78-005, was issued March 16, 1978, to the discharger due to a spill of a herbicide from the plant's transfer-storage area into Alameda Creek. The CAO required the discharger to clean up the spill; submit a Report of Waste Discharge and a Spill Prevention and Contingency Plan; institute interim positive spill control measures; construct spill containment facilities at its transfer-storage areas; pressure test its underground storage tanks; and conduct a soil/groundwater survey for possible contamination.

6. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for Alameda Creek and San Francisco Bay.

7. The existing and potential beneficial uses of Alameda Creek and the affected parts of San Francisco Bay are:

   a. Groundwater reservoir recharge used for domestic water supplies.
   b. Recreation
   c. Fish migration and habitat
   d. Habitat and resting for waterfowl and migratory birds
   e. Industrial and agricultural water supply
   f. Esthetic enjoyment
   g. Navigation
   h. Commercial and sport fishing

8. The City of Fremont had prepared a Final Environmental Impact Report in 1975 on the expansion of the discharger's facilities in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000 et seq) and the State Guidelines.

9. The project as approved by the City of Fremont will have the following significant effect on the quality of the water environment: Increased potential for the contamination of a major groundwater recharge area by toxic and hazardous substances. The City of Fremont required mitigation measures to reduce the potential groundwater contamination by requiring partial spill containment and the valved control of some stormwater discharges.

10. The Prohibitions, Stormwater Effluent Limitations, Receiving Water Limitations and Provisions of this Order mitigate or prevent the adverse water quality impacts of the project.

11. Effluent limitation and toxic effluent standards which have been or may be established pursuant to Sections 208(b), 301, 302, 304, and 307 of the Federal Water Pollution Control Act, and amendments thereto, are applicable to the discharge.

12. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing, provided the Regional Administrator of the U. S. Environmental Protection Agency has no objections.

13. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and on October 17, 1978, has provided them with an opportunity at a public hearing and an opportunity to submit their written views and recommendations.

14. The Board, at the October 17, 1978, public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Amchem Products, Inc., in order to meet the provisions contained in Division of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Prohibitions

1. It shall be prohibited to discharge to waters of the state during the period from May 1 to October 1.

2. Except as in accordance with the terms of this Order it shall be prohibited at any time to discharge to waters of the state process wastes or wastewaters; product or material spills; or vehicle or equipment washdown wastes.

B. Stormwater Effluent Limitations

The following limitations apply to the discharge of stormwater runoff:

1. The volumetric discharge rate shall not be greater than one-two hundredth (i.e. 1:200 or 0.5%) of Alameda Creek flow as measured at the Niles Gaging Station. With the prior approval of the Executive Officer, higher discharges may be used in inverse proportion to the concentration of the highest level contaminant in relation to its standard (i.e. if all contaminants are less than 50% of maximum, the discharge rate can be twice the 1:200 specified or 1:100).

2. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.

3. The discharge shall not contain constituents in excess of the following:

Constituent	Units	Maximum Concentration
a) Chromium (total)	mg/l	1.0
b) Zinc	mg/l	2.0
c) Nickel	mg/l	2.0
d) 2,4-D	mg/l	2.0
e) 2,4,5-TP Silvex	mg/l	0.2
f) 2,4-5-T	mg/l	0.2

C. Receiving Water Limitations

1. The discharge of stormwater runoff shall not cause:

a. Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place which is not typical of normal storm water runoff from a similar facility with good housekeeping practices.

b. Visible, floating, suspended or deposited oil or other products of petroleum origin in waters of the State at any place which is not typical of normal stormwater runoff from a similar facility with good housekeeping practices.

c. Toxicity in waters of the State at levels that impair any of the protected beneficial water uses or make aquatic life or wildlife unfit or unpalatable for human consumption.

d. Degradation of groundwaters suitable for domestic, industrial, or agricultural use.

e. The following limits to be exceeded in waters of the State:

Constituent	Receiving Water Limit
1) pH	Depression below 6.5 or raised above 8.5; or variation from natural ambient pH by more than 0.5 pH units
2) chromium (total)	0.05 mg/l maximum
3) zinc	0.06 mg/l maximum
4) nickel	0.06 mg/l maximum
5) 2,4-D	0.1 mg/l maximum
6) 2,4,5-TP Silvex	0.01 mg/l maximum
7) 2,4,5-T	.01 mg/l maximum

2. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. Neither the treatment nor the discharge of wastes shall create a nuisance or pollution as defined in the California Water Code.

2. This Order includes items 1, 2, 4, 5, 6, 7, 8, 9, and 10 of the attached "Standard Provisions" dated November 20, 1974, (see Attachment A).

3. Responsible personnel shall be on site during all stormwater discharges.

4. Subsequent to October 1 and no later than October 15 of each year, the discharger shall:

   (a) wash down all paved exterior areas used for material and product transfer and/or storage;

   (b) empty all exterior drainage and sumps (excluding the internal waste treatment sump) of accumulated wastes;

   (c) if after sampling and analysis, the resulting washdown and sump wastes can comply with this Order's requirements, they may be discharged, otherwise the discharger shall dispose of the resulting washdown and sump wastes to a Board approved Class I disposal site. For 1978, the discharger shall accomplish the above upon adoption of this Order.

5. Prior to discharge of stormwater runoff to Alameda Creek the discharger shall inform the Executive Officer (procedure to be coordinated annually not later than October 1 or as required. For 1978, it shall be within 5 days of the adoption of the Order) of the proposed effluent's pH and the concentrations of chromium; zinc; nickel; 2,4-D; 2,4,5-T; and 2,4,5-TP Silvex. Upon demonstration to the Executive Officer that stormwater effluent limitations are being consistently met, this provision may be waived by the Executive Officer. After any spill, the Executive Officer may again implement this Provision.

6. The Board may consider amendment of this Order after submittal of a technical report not later than May 1, 1979, and as required under Section 13267 (b) of the California Water Code.

   The technical report shall:

   a) summarize the monitoring data collected during the stormwater run-off period and provide conclusions and recommendations to prevent any reported excursions from these requirements.

   b) investigate alternatives and provide a recommended plan that minimizes polluted stormwater runoff. This investigation shall include:

      1) source control

      2) total or partial containment.

   c) investigate alternatives and provide a recommended plan for maximizing dilution of on-site stormwater runoff to Alameda Creek.

7. Stormwater runoff from any area of the discharger's facilities shall not be subject to the stormwater effluent limitations if the discharger can demonstrate to the satisfaction of the Executive Officer that:

   a. Herbicides and metal working chemicals or their constituents are not manufactued, stored, or transported over the area at any time; and

   b. Opportunity does not exist for herbicide and metal working chemicals or their constituents to be released onto the area as a result of accidental spillage; and

   c. The area does not accumulate herbicides and metal working chemicals or their constituents as a result of airborne transport and deposition; and

   d. The area has been cleaned of any herbicides and metal working chemicals or their constituents which may have been deposited on that area as a result of past manufacturing activities.

8. The discharger has submitted a "Spill Prevention and Control Plan" dated August 2, 1978, which complies with the Board's CAO 78-005. The discharger shall review and update annually its Plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to implement its Spill Prevention and Control Plan will be basis for considering such discharge a willfull and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

9. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer.

10. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

11. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.

12. This Order expires on October 16, 1983. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 17, 1978.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions dated 11/20/74
Resolution No. 74-10
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Amchem Products, Inc.

Fremont, Alameda County

NPDES NO. CA 0028363

ORDER NO. 78-89

CONSISTS OF

PART A (1/78)

AND

PART B (10/17/78)

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

Station	Description
E-001	At any point in the outfall of the wastes between the point of discharge and the point at which all wastes tributary to that outfall is present.
E-PS	A composite of four spatially distributed grab samples taken so as to represent the detention pond contents on the south side of the warehouse building.
E-PW	A composite of four spatially distributed grab samples taken so as to represent the detention pond contents on the west side of the warehouse building.

B. RECEIVING WATERS

Station	Description
C-R	In Alameda Creek 50 feet upstream from the point of effluent discharge.
C-1	In Alameda Creek, 100 feet downstream from the point of effluent merges with main stream and taken within the second hour of discharge. Quantity of streamflow in Alameda Creek shall be obtained from the Alameda County Water District, telephone (415) 797-1970. If point of merge is not 50 feet from outfall a map/plan showing the location will be submitted with monitoring report.

C. RAINFALL

Station	Description
R	A raingauge that is maintained on-site that accurately measures daily rainfall. The discharger may utilize a raingauge off-site provided it can be demonstrated to the satifaction of the Executive Officer that the off-site raingauge represents the on-site rainfall.

D. SPILL VAULTS

Station	Description
L	Located at the loading/unloading railroad spur spill vaults. The measurement will be the freeboard depth. See Part A, paragraph C.5 for criteria.

II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

A. The schedule of sampling, measurements and analysis shall be as given as Table I.

III. MODIFICATION OF PART "A", DATED JANUARY 1978

A. Exclusions: Paragraphs C.3, C.4, C.5.a(5)(a), C.5.e, E.2.b, E.4, F.3.e, F.3.g.(2), D.3.b., D.4.a, D.4.b, E.3, F.2, F.3.c.

B. Modifications:

1. Paragraph C.5.a(5)(a) Hydrographic condition:

insert: "Streamflow conditions as recorded at Niles Gaging Station to include time, date, flow, and person contacted." for Part A requirement.

2. Paragraph C.5.a(b)(c) precipitation:

insert: "Precipitation on the day of observation only" for Part A requirement.

3. Paragraph D.2.a:

delete: "...or on varying days selected at random."

add: "...and shall be the first two stormwater runoff discharges of each month."

4. Paragraph F:

Paragraph F.3.c.

Change to read: A map or aerial photograph shall accompany the initial and annual report showing sampling and observation station locations.

add 5. Special Reports

Prior to discharge the discharger shall contact the Executive Officer (415- 464-1255) and report Effluent station E-P's pH and concentrations of chromium (total) zinc; nickel; 2,4-D; 2,4,5-T; and 2,4,5-TP Silvex. This sampling and reporting requirement may be waived by the Executive Officer when the discharger demonstrates consistent compliance. The sampling and reporting requirement may be required by Executive Officer after any spill.

These special reports shall be included in the monthly reports.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 78-89.

2. Has been ordered by the Executive Officer on October 17, 1978, and becomes effective immediately.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-PS 2/ E-PW		C-R$_p$-1		R	L					
TYPE OF SAMPLE	G 1/	O	G	O	G	O	C-24	O					
Flow Rate & Quality gpm and gallons (total)		E		E									
BOD, 5-day, 20° C, or COD (mg/l & kg/day)													
Chlorine Residual & Dosage (mg/l & kg/day)													
Settleable Matter (ml/1-hr. & cu. ft./day)													
Total Suspended Matter (mg/l & kg/day)													
Oil & Grease (mg/l & kg/day)													
Coliform (Total or Fecal) (MPN/100 ml) per req't													
Fish Toxicity, 96-hr. % Survival in undiluted waste	M												
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)	2/M		E		2/M								
Dissolved Oxygen (mg/l and % Saturation)													
Temperature (°C)													
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO ≤ 5.0 mg/l) Total & Dissolved (mg/l)													
Arsenic (mg/l & kg/day)													
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)	2/M		E										
Copper (mg/l & kg/day)													
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day													
Lead (mg/l & kg/day)													

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-P 2/		C-R$_1$-1		R	L					
TYPE OF SAMPLE	1/ G	O	G	O	G	O	C-24	O					
Mercury (mg/l & kg/day)													
Nickel (mg/l & kg/day)	2/M		E										
Zinc (mg/l & kg/day)	2/M		E										
Total Organic Carbon (mg/l)	2/M												
All Applicable Standard Observations		E		E		E		W					
Bottom Sediment Analyses and Observations													
2,4-D (mg/l)	2/M		E		2/M								
2,4,5-T (mg/l)	2/M		E		2/M								
2,4,5-TP (mg/l)	2/M		E		2/M								
Rainfall *in/day)							D						
Freeboard (ft)								W					
Alameda Creek Streamflow (gpm)						E							

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations
R = Rainfall Station

FREQUENCY OF SAMPLING

E = each discharge occurrence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

NOTES:

1. Take a minimum of 3 grab samples on the day of sampling. The first sample for each day shall be taken during the first hour of discharge, and the others at equal time intervals thereafter. The three samples shall be combined and analyzed.

2. See special reporting requirements.